AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A ~~procedure~~process for determining a~~the determination of the~~ magnitude of a noise ~~(T_{DUT})~~ of an electronic object to be measured, said process comprising:

~~(2) by the~~ inputting ~~of~~ a sine signal (S_{in}) into the electronic object; and ~~the measurement~~ measuring ~~of~~ an associated power level ~~by means of~~with a level meter, wherein the level meter determines ~~(3), therein characterized, in that by means of the level meter (3),~~ a sine power level $(\hat{P}_{sin})$ and a noise power level $(\hat{P}_{noise})$ ~~are~~ separately ~~determined~~.

2. (Currently Amended) ~~A procedure in accord with Claim 1~~The process of claim 1, ~~therein characterized, in that~~wherein the level meter ~~(3)~~ takes ~~the~~ samples of ~~the~~ output signals (S_{out}) and determines a sample value~~in that,~~ from the sine power level, $(\hat{P}_{sin})$ by taking ~~the~~an arithmetical average ~~in device (33),~~of the samples and subsequent squaring ~~(34)~~ of ~~the~~an amount of ~~the~~an arithmetical average of the samples~~(AVG), the sample value may be determined~~.

3. (Currently Amended) The process of claim~~A procedure in accord with Claim~~ 2, wherein~~therein characterized, that~~ the noise power level is~~can be~~ obtained by taking an~~the~~ arithmetical average ~~(35)~~ of the amount squared of the samples and subsequent subtraction of the sine power level $(\hat{P}_{sin})$.

4. (Currently Amended) The process of~~A procedure in accord with~~ claim 2, wherein ~~or 3,therein characterized, in that~~ prior to taking the average value ~~(33, 35)~~, an estimation ~~(28)~~ and a revision ~~(29)~~ of a deviation of a~~the~~ frequency of the input sine signal (S_{in}) from a~~the~~ frequency of an available local oscillator ~~(22)~~ in the level meter are~~(3) is~~ carried out.

5. (Currently Amended) The process of claim~~A procedure in accord with one of the claims~~ 1, wherein~~to 4, therein characterized, in that~~ the magnitude of the noise is the noise temperature T_{DUT} of the object to be measured~~-2~~, and the noise temperature T_{DUT} is~~can be~~ determined by the formula~~e~~:

$$T_{DUT} = \frac{P_{sin}}{k \bullet B_M} \bullet \frac{P_{MESS,noise}}{P_{MESS,sin}}$$

where~~by~~

P_{sin}	is the power level of the sine signal at the input of the object to be measured ~~(2)~~
$P_{MESS,sin}$	is the sine power level measured with the level meter ~~(3)~~
$P_{MESS,noise}$	is the noise power level measured with the level meter ~~(3)~~
k	is the Boltzmann Constant, and
B_M	is a ~~the~~ bandwidth of the level meter ~~(3)~~.

~~are defined as they appear in the above equation.~~

6. (Currently Amended) The process of claim~~A procedure in accord with one of the claims~~ 1, wherein: (a) ~~to 4, therein characterized, in that,~~ a calibration precedes the measurement, in which the sine signal (S_{in}) has ~~the same~~a level identical to a~~as is the case with the~~ measurement level; (b) the sine signal is input directly into the level meter~~, however,~~ circuitously by-passing the object to be measured; ~~(2) the said sine signal (S_{in}) is input directly into the level meter (3) and in that~~ (c) the magnitude of the noise is the noise temperature T_{DUT}; and the noise temperature T_{DUT} of the object to be measured ~~(2)~~ is determined by the formula:

$$T_{DUT} = \frac{P_{sin}}{k \bullet B_M} \bullet \frac{(P_{MESS,noise} - P_{CAL,noise})}{P_{MESS,sin}}$$

wherein

P_{sin}	is the power level of the sine signal at the input to the object to be measured ~~(2)~~,
$P_{MESS,sin}$	is the power level of the sine measured with intermediate circuitous inclusion of the object to be measured ~~(2)~~ and measured with the level meter ~~(3)~~
$P_{MESS,Noise}$	is the power level of the noise measured with intermediate circuitous inclusion of the object to be measured ~~(2)~~ measured with the level meter ~~(3)~~

$P_{CAL,noise}$	is the power level of the noise measured without intermediate circuitous inclusion of the object to be measured ~~(2)~~ measured with the level meter ~~(3)~~
k	is the Boltzmann Constant
B_M	is the bandwidth of the level meter ~~(3)~~.

7. (Currently Amended) An apparatus for determining~~the determination of~~ a magnitude of a noise ~~(T_{DUT})~~ of an electronic object to be measured, ~~(2) with~~said apparatus comprising:

a sine-signal source adapted to~~(1), which~~ produces a sine signal ~~(S_{in})~~ which is to be input into the object to be measured; ~~(2), and~~

a level meter ~~(3)~~ for measuring~~the measurement of~~ a power level at an~~the~~ output of the object to be measured ~~(2)~~, wherein~~therein characterized, in that~~ the level meter ~~(3)~~ is equipped with a sine power level detector device ~~(31)~~ for ~~the~~ separately and discretely capturinge ~~of~~ a sine power level $\hat{P}_{sin}$ and a noise power level detector device ~~(32)~~ for ~~the~~ capturinge ~~of~~ a noise power level $(\hat{P}_{noise})$.

8. (Currently Amended) The~~An~~ apparatus of~~in accord with~~ claim 7, wherein~~therein characterized, in that~~ the level meter ~~(3)~~ captures ~~the~~ samples of an~~the~~ output signal ~~(S_{out})~~ at the object to be measured ~~(2)~~ and ~~in that~~ the sine power level detector device ~~(31)~~ determines the sine-power level $\hat{P}_{sin}$ by taking ~~the~~an arithmetical average ~~(33)~~ of the samples and subsequent squaring ~~(34)~~ of an~~the~~ amount of an~~the~~ arithmetic average value ~~(AVG)~~ of the samples.

9. (Currently Amended) The~~An~~ apparatus of~~in accord with~~ claim 8, wherein ~~therein characterized, in that~~ the noise power level detector device ~~(32)~~ determines the noise power level $(\hat{P}_{noise})$ by taking an~~the~~ arithmetical average ~~(35)~~ of a~~the~~ square of an~~the~~ amount of a~~the~~ sample and subsequent subtraction ~~(36)~~ of the sine power level $\hat{P}_{sin}$.

10. (Currently Amended) The~~An~~ apparatus of~~in accord with~~ claim 8, wherein~~or 9, therein characterized in that~~ the level meter ~~(3)~~ has a frequency estimation device ~~(28)~~ which, prior to taking the average ~~(33, 35)~~ undertakes an estimation of a frequency deviation between

the frequency of the sine signal ~~(S_{in})~~ input into the object to be measured, ~~(2) and the~~a frequency of a local oscillator ~~(22)~~ present in the level meter ~~(3)~~, and a frequency correction device ~~(29)~~, which rectifies the said frequency deviation.

11. (Currently Amended) The~~An~~ apparatus of claim ~~in accord with one of the claims~~ 7, wherein ~~to 10, therein characterized, in that~~ the magnitude of the noise is the noise temperature T_{DUT}, and an evaluator ~~(40)~~ is adapted to determines the noise temperature T_{DUT} of the object to be measured using~~by means of~~ the formula:

$$T_{DUT} = \frac{P_{sin}}{k \bullet B_M} \bullet \frac{(P_{MESS,noise})}{P_{MESS,sin}}$$

wherein ~~the following symbols represent~~:

$P_{(sin)}$ is the power level of the sine signal at the input of the object to be measured ~~(2)~~,

$P_{(MESS,sin)}$ is the sine power level as measured with the level meter ~~(3)~~,

$P_{MESS,noise}$ is the noise power level as measured with the level meter ~~(3)~~,

k is the Boltzmann Constant, and

B_M is a ~~the~~ bandwidth of the level meter ~~(3)~~.

12. (Currently Amended) The~~An~~ apparatus of claim ~~in accord with one of the claims~~ 7, wherein ~~to 11, therein characterized in that~~ (a) a calibration precedes the measurement, in the case of which the sine signal $P_{(sin)}$ is input directly into the level meter ~~(3)~~ at a~~the same~~ level identical to a measurement level~~as~~ determined by the measurement~~, however,~~ without an intermediate routing through the object to be measured; ~~(2) and in that~~(b) the magnitude of the noise is the noise temperature T_{DUT}; and (c) an evaluation device ~~(40)~~ determines the noise temperature T_{DUT} of the object to be measured in accord with the formula:

$$T_{DUT} = \frac{P_{sin}}{k \bullet B_M} \bullet \frac{(P_{MESS,noise} - P_{CAL,noise})}{P_{MESS,sin}}$$

wherein ~~the following symbols represent~~:

P_{sin} is the power level of the sine signal at the

input of the object to be measured ~~(2)~~,

$P_{MESS,sin}$ is the sine power level with circuitous inclusion of the object to be measured ~~(2)~~ as measured with the level meter ~~(3)~~,

$P_{MESS,noise}$ is the noise power level with circuitous inclusion of the object to be measured ~~(2)~~, as measured with the level meter ~~(3)~~,

$P_{CAL,noise}$ is the noise power level without circuitous inclusion of the object to be measured ~~(2)~~, as measured with the level meter ~~(3)~~,

k is the Boltzmann Constant, and

B_M is a~~the~~ bandwidth of the level meter ~~(3)~~.